

Attorney Docket No.: BP 2961

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CENTRAL FAX CENTER**

10/780,160

IN THE CLAIMS:

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1. (Currently Amended) A method for servicing communications from a Call Control Entity (CCE) to a wireless terminal, comprising:

communicatively coupling the CCE with a wireless local area network (WLAN), the WLAN having a plurality of Access Points (APs);

receiving at the CCE a call for the wireless terminal;

determining the physical location of the wireless terminal relative to a coverage areas of individual APs within of the WLAN;

allocating WLAN resources to service the call, when the wireless terminal is within a coverage area of the at least one AP based on call servicing factors;

delivering the call to the wireless terminal via the WLAN if

the wireless terminal is within the coverage area of the WLAN; and

the call servicing factors allow the call to be serviced by the WLAN; or

attempting to deliver the call to the wireless terminal via an alternate network based on the call servicing factors ~~a cellular network if the wireless terminal is not serviced by the WLAN.~~

2. (Original) The method of claim 1, further comprising delivering the call to voice mail if the call cannot be delivered to the wireless terminal.

3. (Currently Amended) The method of claim 1, further comprising:
determining the location of the wireless terminal relative to a coverage area of the alternate ~~cellular~~ network;

servicing the call with the WLAN when the location of the wireless terminal is within the coverage area of the WLAN and WLAN resources are allocated to service the call; and

servicing the call with the alternate ~~cellular~~ network when:

the location of the wireless terminal is outside the coverage area of the WLAN but within the coverage area of the alternate ~~cellular~~ network; or

WLAN resources are not allocated to service the call.

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4. (Original) The method of claim 3, further comprising determining the location of the wireless terminal with Global Positioning Satellites (GPS).

5. (Currently Amended) The method of claim 4, further comprising:
determining a relative motion and location of the wireless terminal relative to a boundary of a coverage area of the WLAN;

determining a relative motion and location of the wireless terminal relative to a coverage area of the alternate ~~cellular~~ network;

servicing the call with the WLAN when the location of the wireless terminal is within the coverage area of the WLAN; and

servicing the call with the alternate ~~cellular~~ network when:
the relative motion of the wireless terminal is towards the boundary of the coverage area of the WLAN; or

the location of the wireless terminal is within the coverage area of the alternate ~~cellular~~ network and the wireless terminal is predicted to leave the coverage area of the WLAN.

6. (Currently Amended) The method of claim 3, further comprising initiating a handoff of the call from the WLAN to the alternate ~~cellular~~ network before a loss of signal with the WLAN is expected to occur, based on:

the relative motion of the wireless terminal towards a boundary of a coverage area of the WLAN; and

physical boundaries that may impede the relative motion of the wireless terminal towards the boundary of a coverage area of the WLAN.

7. (Original) The method of claim 3, further comprising predicting if the wireless terminal will leave a coverage area of the WLAN based on previous movements of the wireless terminal relative to the coverage area of the WLAN.

8. (Original) The method of claim 7, further comprising servicing the call with the WLAN when the wireless terminal is predicted to stay within the coverage area of the WLAN.

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9. (Currently Amended) The method of claim 1, further comprising delivering the call to the wireless terminal via the WLAN or the alternate ~~cellular~~ network based on call serving factors that comprise:

a comparison of ~~ng~~ the signal quality of the WLAN and the signal quality of the alternate ~~cellular~~ network;

available bandwidth within the WLAN and the alternate network; and

costs associated with servicing the call with the WLAN and the alternate network.

10. (Currently Amended) The method of claim 1, further comprising comparing signal strengths from a plurality of Access Points (APs) in the WLAN to determine whether to service the wireless terminal with the WLAN or the alternate ~~cellular~~ network.

11. (Original) The method of claim 3, further comprising observing the signal strengths over time from a plurality of APs to predict whether the wireless terminal is leaving a coverage area of the WLAN.

12. (Currently Amended) The method of claim 3, further comprising:
comparing relative signal quality of the alternate ~~cellular~~ network and the WLAN; and
choosing to service the call based on relative service quality between a parallel communication path and the WLAN.

13. (Original) The method of claim 3, further comprising:
servicing the call to the wireless terminal via the alternate ~~cellular~~ network when the signal quality of a serving Access Point (AP) fails to meet the first handoff threshold and when signal strengths of all Access Points (APs) in the WLAN are decreasing.

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14. (Currently Amended) A method for servicing communications to a wireless terminal with a wireless local area network (WLAN) and an alternative network, comprising:

- servicing a call to the wireless terminal via the WLAN;
- determining if a call servicing factor ~~signal-quality~~ between the WLAN and the wireless terminal fails to meet a call servicing factor that comprises a first handoff threshold;
- allocating alternative network resources to service the call;
- establishing a parallel communication path to the wireless terminal via the alternative network to service the call; and
- servicing the call to the wireless terminal via the alternative network when the call servicing factor ~~signal-quality~~ fails to meet a second handoff threshold;
- terminating the communication path between the wireless terminal and the WLAN when the call servicing factor ~~signal-quality~~ between the WLAN and the wireless terminal decreases below the second handoff threshold;
- servicing the call to the wireless terminal via the WLAN when the call servicing factor ~~signal-quality~~ increases above the first handoff threshold; and
- terminating the communication path between the wireless terminal and the alternative network when the call servicing factor ~~signal-quality~~ between the WLAN and the wireless terminal increases above the first handoff threshold.

15. (Original) The method of claim 14, further comprising:

- determining a location of the wireless terminal relative to a coverage area of the WLAN;
- determining the location of the wireless terminal relative to a coverage area of the alternative network;
- servicing the call with the WLAN when the location of the wireless terminal is within the coverage area of the WLAN; and
- servicing the call with the alternative network when the location of the wireless terminal is outside the coverage area of the WLAN but within the coverage area of the alternative network.

16. (Original) The method of claim 14, wherein the alternative network comprises a cellular network.

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17. (Original) The method of claim 14, wherein the alternative network comprises a satellite based network.

18. (Original) The method of claim 14, further comprising:
determining a relative motion and location of the wireless terminal relative to a boundary of a coverage area of the WLAN;

determining a relative motion and location of the wireless terminal relative to a coverage area of the alternative network;

servicing the call with the WLAN when the location of the wireless terminal is within the coverage area of the WLAN; and

servicing the call with the alternative network when:

the relative motion of the wireless terminal is towards the boundary of the coverage area of the WLAN; or

the location of the wireless terminal is within the coverage area of the alternative network and predicted to leave the coverage area of the WLAN.

19. (Original) The method of claim 14, further comprising initiating a handoff of the call from the WLAN to the alternative network before a loss of signal within the WLAN based on the relative motion of the wireless terminal relative to a boundary of a coverage area of the WLAN.

20. (Original) The method of claim 14, further comprising predicting if the wireless terminal will leave a boundary of a coverage area of the WLAN based on previous movement of the wireless terminal relative to the boundary of a coverage area of the WLAN.

21. (Original) The method of claim 20, further comprising servicing the call with the WLAN when the wireless terminal is predicted to stay within a coverage area of the WLAN.

22. (Original) The method of claim 14, further comprising determining whether to handoff/deliver call to wireless terminal via WLAN or the alternative network based on comparing the call servicing factor ~~signal quality~~ of the WLAN and the call servicing factor ~~signal quality~~ of the

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alternative network.

23. (Original) The method of claim 14, further comprising comparing signal strengths from a plurality of Access Points (APs) in the WLAN to determine whether to service the wireless terminal with the WLAN or the alternative network.

24. (Original) The method of claim 14, further comprising observing the signal strengths over time from a plurality of APs to predict whether the wireless terminal is leaving a coverage area of the WLAN.

25. (Previously Amended) The method of claim 14, further comprising:
comparing relative call servicing factor ~~signal quality~~ of the parallel communication path and the WLAN; and

choosing to service the call based on relative service quality between a parallel communication path and the WLAN.

26. (Original) The method of claim 14, further comprising:
servicing the call to the wireless terminal via the alternative network when the call servicing factor ~~signal quality~~ of a serving Access Point (AP) fails to meet the first handoff threshold and when a signal strength of all Access Points (APs) in the WLAN are decreasing.

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27. (Currently Amended) A method for servicing a wireless terminal via a wireless local area network (WLAN) comprising:

servicing a call with the wireless terminal via a cellular network;
determining that a service quality supportable by the WLAN meets a first handoff threshold;
allocating WLAN resources to service the call based on call servicing factors;
establishing a parallel communication path to the wireless terminal via the WLAN; and
when the service quality supported by the WLAN meets a second handoff threshold,
terminating the communication path to the wireless terminal via the cellular network; and
when the service quality supported by the WLAN subsequently fails meets the first handoff threshold, terminating the communication path to the wireless terminal via the WLAN.

28. (Original) The method of claim 27, further comprising:
determining a location of the wireless terminal relative to a coverage area of the WLAN;
determining the location of the wireless terminal relative to a coverage area of the alternative network;

servicing the call with the WLAN when the location of the wireless terminal is within the coverage area of the WLAN; and

servicing the call with the alternative network when the location of the wireless terminal is outside a coverage area of the WLAN but within the coverage area of the alternative network.

29. (Original) The method of claim 27, wherein the alternative network comprises a cellular network.

30. (Original) The method of claim 27, wherein the alternative network comprises a satellite based network.

31. (Original) The method of claim 27, further comprising:
determining a relative motion and location of the wireless terminal relative to a boundary of a coverage area of the WLAN;

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determining a relative motion and location of the wireless terminal relative to a coverage area of the alternative network;

servicing the call with the WLAN when the location of the wireless terminal is within the coverage area of the WLAN; and

servicing the call with the alternative network when the relative motion of the wireless terminal is towards the boundary of the coverage area of the WLAN and location of the wireless terminal is within the coverage area of the alternative network and predicted to leave the coverage area of the WLAN.

32. (Original) The method of claim 27, further comprising initiating a handoff of the call from the WLAN to the alternative network before a loss of signal within the WLAN based on the relative motion of the wireless terminal relative to a boundary of a coverage area of the WLAN.

33. (Original) The method of claim 27, further comprising predicting if the wireless terminal will leave a boundary of a coverage area of the WLAN based on previous movement of the wireless terminal relative to the boundary of a coverage area of the WLAN.

34. (Original) The method of claim 33, further comprising servicing the call with the WLAN when the wireless terminal is predicted to stay within a coverage area of the WLAN.

35. (Currently Amended) The method of claim 28, further comprising determining whether to handoff/deliver call to wireless terminal via WLAN or the alternative network based on comparing the call servicing factor ~~signal quality~~ of the WLAN and the call servicing factor ~~signal quality~~ of the alternative network.

36. (Original) The method of claim 27, further comprising comparing signal strengths from a plurality of Access Points (APs) in the WLAN to determine whether service the wireless terminal with the WLAN or the alternative network.

37. (Original) The method of claim 27, further comprising observing the signal strengths over time from a plurality of APs to predict whether the wireless terminal is leaving a

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coverage area of the WLAN.

38. (Previously Amended) The method of claim 27, further comprising:
comparing relative call servicing factor ~~signal quality~~ of the parallel communication path and the WLAN; and
choosing to service the call based on relative service quality between a parallel communication path and the WLAN.

39. (Original) The method of claim 27, further comprising:
servicing the call to the wireless terminal via the alternative network when the call servicing factor ~~signal quality~~ of a serving Access Point (AP) fails to meet the first handoff threshold and when a signal strength of all Access Points (APs) in the WLAN are decreasing.